

REMARKS

Claims 1-15 were previously pending in this application. By this amendment, Applicants cancel claims 4-7 and 10-15 without prejudice or disclaimer, amend claims 1-3, 8, and 9, and add new claims 16-21. As a result, claims 1-3, 8, 9, and 16-21 are pending for examination with claim 1 being an independent claim. No new matter has been added.

Amendments to the Claims

Claim 1 is amended to recite that a termination impedance circuit configured to provide an impedance associated with a frequency range of a first signal protocol, and an impedance associated with a frequency range of a second signal protocol, wherein the impedance associated with the frequency range of the second signal protocol is selectable to provide one of an off-state impedance and an on-state impedance in response to one of an off-state condition and an on-state condition associated with the second signal protocol. Support for this amendment is found, for example, in original claim 1, the Specification at page 22, line 29 through page 24, and FIGS. 14a, 14b, 15a, and 15b.

Dependent claim 2 is amended to recite that the termination impedance circuit comprises at least first and second impedance elements associated respectively with the first and second protocols, and a switch network which selects different combinations of the at least first and second impedance elements to selectably provide one of the off-state impedance and the on-state impedance. Support for this amendment is found, for example, in original claim 2, and in the Specification at page 23, second full paragraph, and FIGS. 14a, 14b.

Dependent claim 3 is amended to recite that the termination impedance circuit further comprises a blocking capacitor connected in series with the first impedance element. Support for this amendment is found, for example, in original claim 3, and in the Specification at page 23, second full paragraph, page 25, last paragraph, and FIGS. 14a, 14b.

Dependent claim 8 is amended to recite that a telephony device further includes an echo-cancel hybrid circuit, in electrical communication with the termination impedance circuit, that

provides an echo cancel characteristic, wherein the characteristic is selectable. Support for this amendment is found, for example, in original claim 8, and FIG. 16a.

Dependent claim 9 is amended to recite that the echo-cancel hybrid circuit includes a multiplexer, and a plurality of echo-cancel hybrids coupled to the multiplexer. Support for this amendment is found, for example, in original claim 9, and FIG. 16b.

New claims 16-21 each depend directly or indirectly from independent claim 1, and are directed to some alternative embodiments of the invention. Claim 16 recites that the first signal protocol is associated with a DSL protocol, and the second signal protocol is associated with a POTS protocol. Support for this amendment is found, for example, in the Specification at page 23, last paragraph.

Claim 17 recites that the switch network responds to a hook signal that indicates the off-state and on-state conditions associated with the second signal protocol. Support for this amendment is found, for example, in the Specification at page 23, lines 24-25.

Claim 18 recites that a magnitude associated with the off-state impedance is greater than a magnitude associated with the on-state impedance. Support for this amendment is found, for example, in the Specification at page 24, second full paragraph.

Claim 19 recites that the magnitude associated with the off-state impedance is greater than about 2000 ohms, the magnitude associated with the on-state impedance is about 600 ohms, and a magnitude associated with the impedance associated with the frequency range of the first signal protocol is about 100 ohms. Support for this amendment is found, for example, in the Specification at page 5, third full paragraph, and page 24, second full paragraph.

Claim 20 recites that the frequency range of the first signal protocol is associated with a range of frequency values greater than a range of frequency values associated with the frequency range of the second signal protocol. Support for this amendment is found, for example, in the Specification at page 24, second full paragraph.

Claim 21 recites that a magnitude of the impedance associated with the frequency range of the first signal protocol is substantially constant for all frequencies of the frequency range of the first signal protocol. Support for this amendment is found, for example, in FIGS. 15a and 15b.

Accordingly, the amendments to the claims, and the new claims, add no new matter.

Objection to Claim 7

The Office action objected to claim 7 as depending from itself. The cancellation of claim 7 renders this objection moot.

Rejection of Claim 15 Under 35 U.S.C. §112, Second Paragraph

The Office action rejected claim 15 under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential elements. The cancellation of claim 15 renders this objection moot.

Rejection of Claims 1-7 Under 35 U.S.C. §102

The Examiner rejected claims 1-7 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,621,346 to Nabicht et al. ("Nabicht"). Claims 4-7 have been cancelled. Applicants respectfully submit that Nabicht does not anticipate independent claim 1, as amended, because Nabicht does not teach or suggest all of the limitations of claim 1. This conclusion is supported by the following reasons.

In contrast to the disclosure of Nabicht, amended independent claim 1 recites a telephony device that includes a termination impedance circuit configured to provide an impedance associated with a frequency range of a first signal protocol, and an impedance associated with a frequency range of a second signal protocol, wherein the impedance associated with the frequency range of the second signal protocol is selectable to provide one of an off-state impedance and an on-state impedance in response to one of an off-state condition and an on-state condition associated with the second signal protocol.

Rather than teaching or suggesting a termination impedance circuit, as recited by claim 1, Nabicht teaches an impedance matching circuit (56) that adjusts an input impedance of a variable gain amplifier. See Nabicht, column 8, lines 49-53 (stating that “the input impedance of programmable gain amplifier 54C is adjusted by impedance matching circuit 56 to present a constant input impedance to line driver 14...regardless of the selected gain of amplifier 54C.”) Nabicht teaches that impedance matching maintains good high frequency response while the gain is varied for the amplifier (54), but does not teach or suggest a termination impedance that selectably provides off- and on-state impedances associated with a second signal protocol, as recited by claim 1. See Nabicht, column 11, lines 36-41 (stating that the “input impedance matching circuit...maintains the input impedance of the programmable gain amplifier constant, over the range of selectable gains [to maintain] a constant high frequency response of the amplifier over a wide range of gain characteristics.”) Moreover, Nabicht’s impedance matching circuit (56) is not a termination impedance circuit because Nabicht’s circuit (56) does not provide a termination impedance.

For the above reasons, Nabicht does not teach or suggest a termination impedance circuit configured to provide an impedance associated with a frequency range of a first signal protocol, and an impedance associated with a frequency range of a second signal protocol, wherein the impedance associated with the frequency range of the second signal protocol is selectable to provide one of an off-state impedance and an on-state impedance in response to one of an off-state condition and an on-state condition associated with the second signal protocol, as recited by independent claim 1, as amended. Because Nabicht does not teach or suggest claim 1, Applicants submit that Nabicht does not teach or suggest claim 2 or claim 3, which depend directly or indirectly from claim 1. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-3 under 35 U.S.C. §102(b).

Rejections of Claims 8-15 Under 35 U.S.C. §102

The Examiner rejected claims 8-15 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,621,346 to Thiele (“Thiele”). Claim 10-15 have been cancelled, and claims 8 and 9 have been amended to now depend directly or indirectly from claim 1. Applicants respectfully

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submit that Thiele does not teach or suggest the limitations recited by either claim 8 or claim 9, as amended, because Thiele does not teach or suggest a termination impedance circuit configured to provide an impedance associated with a frequency range of a first signal protocol, and an impedance associated with a frequency range of a second signal protocol, wherein the impedance associated with the frequency range of the second signal protocol is selectable to provide one of an off-state impedance and an on-state impedance in response to one of an off-state condition and an on-state condition associated with the second signal protocol, as recited by both claim 8 and claim 9. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 8 and 9 under 35 U.S.C. §102(b).

New Claims 16-21

New claims 16-21 each depend directly or indirectly from claim 1. Therefore, for the same reasons described above, Applicants submit that claims 16-21 are patentable over the cited references. Accordingly, Applicants respectfully request consideration and allowance of claims 16-21.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
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